

B1
comcl'd.

providing a plurality of rotor bars uniformly spaced around the rotor; and

providing a plurality of sensing slots uniformly spaced around the rotor; wherein at least one of said plurality of sensing slots is not centered to a corresponding one of said plurality of rotor bars positioned around the rotor.

3. (Twice Amended) A method for modifying an electric machine drive rotor having a stator to create rotor-position-dependent saliency and allow sensorless control, the method comprising:

providing a plurality of rotor bars uniformly spaced around the rotor; and

providing a plurality of sensing slots variably spaced in a repeating manner around the rotor, wherein the distance between an adjacent pair of said plurality of sensing slots is variably spaced with respect to the distance between a next adjacent pair of said plurality of sensing slots and wherein at least one of said plurality of sensing slots is not centered to a corresponding one of said plurality of rotor bars positioned around the rotor.

B2

10. (Twice Amended) A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and

a rotor having a plurality of rotor sensing slots located along its outer periphery, said rotor also having a plurality of rotor bars, wherein said plurality of rotor sensing slots are coupled to said plurality of stator slots and wherein said plurality of rotor sensing slots are spaced uniformly around

the outer periphery of said rotor and wherein at least one of said plurality of rotor sensing slots is not centered to a corresponding one of said plurality of rotor bars positioned around the rotor.

B2
Cancelled.

11. (Twice Amended) A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and
a rotor having a plurality of rotor sensing slots located along its outer periphery, said rotor also having a plurality of rotor bars, wherein said plurality of rotor sensing slots are coupled to said plurality of stator slots and wherein said plurality of rotor sensing slots are variably spaced in a repeating pattern around the outer periphery of said rotor, wherein the distance between an adjacent pair of said plurality of sensing slots is variably spaced with respect to the distance between a next adjacent pair of said plurality of sensing slots and wherein at least one of said plurality of rotor sensing slots is not centered to a corresponding one of said plurality of rotor bars positioned around the rotor.

B3

17. (Twice Amended) A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and
a rotor having a plurality of rotor sensing slots located along its outer periphery, said rotor also having a plurality of rotor bars, wherein said plurality of rotor sensing slots are spaced uniformly around the outer periphery of said rotor and wherein at least one of said plurality of rotor sensing slots is

not centered to a corresponding one of said plurality of rotor bars positioned around the rotor.

B3
CINC&L

18. (Twice Amended) A sensorless control electric machine drive comprising:

a stator having a plurality of stator slots; and
a rotor having a plurality of rotor sensing slots located along its outer periphery, said rotor also having a plurality of rotor bars, wherein said plurality of rotor sensing slots are variably spaced in a repeating pattern around the outer periphery of said rotor, wherein the distance between an adjacent pair of said plurality of sensing slots is variably spaced with respect to the distance between a next adjacent pair of said plurality of sensing slots and wherein at least one of said plurality of rotor sensing slots is not centered to a corresponding one of said plurality of rotor bars positioned around the rotor.